



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,358	09/14/2004	Bradford Morse		5357

56719 7590 10/18/2006

MEDLER FERRO PLLC  
8607 ROCKDALE LANE  
SPRINGFIELD, VA 22153

EXAMINER
----------

GUIDOTTI, LAURA COLE

ART UNIT	PAPER NUMBER
----------	--------------

1744

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/711,358	<b>Applicant(s)</b> MORSE ET AL.	
	<b>Examiner</b> Laura C. Guidotti	<b>Art Unit</b> 1744	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9,11,17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9,11,17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ussen, USPN 6,550,089.

Ussen discloses the claimed invention including a “self-guided” drive unit (9; the device is considered to be “self-guided” as it guides itself physically independently; under the influence of a signal from a remote control, the device “self-guides” or drives itself according to the signal from the remote control; the device is capable of guiding itself by deflecting off objects, corners, or obstacles as it may bounce away from those surfaces; the drive unit’s internal mechanism is actually the portion receiving the remote control and self-guides the unit 9) having an outer surface (Figure 4) and a motorized internal mechanism adapted to impart rotary motion to the drive unit (1; Column 2 Line 67 to Column 3 Line 2), a disposable cleaning sheet (10; Column 3 Line 44 states that the sheet/cover is removable and therefore capable of being disposed of) having a first and second side (see Figure 4), wherein the sheet is a formed sheet (10, the sheet is “formed”) constructed for and capable of having a snug fit to the drive unit without the use of adhesives or fasteners (as it is elastic, Column 3 Lines 44-46), wherein the drive unit to impart rotary motion to the sheet (Column 3 Lines 43-46; Figure 4) (claims 1 and

Art Unit: 1744

19). Regarding claim 2, the sheet completely encompasses the drive unit (as it is made of two hemispheres, Column 3 Lines 43-46). Regarding claim 4, the outer surface of the drive unit is substantially spherical (Column 3 Line 43; Figure 4). Regarding claim 10, the sheet is directly connected to the drive unit (Figure 4). Regarding claim 17, the method of making the cleaner includes obtaining the drive unit having a motorized internal mechanism and providing a sheet for use with the drive unit (Column 3 Lines 43-46).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

Art Unit: 1744

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 3, 6-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 in view of Sohmer, USPN 3,742,547.

Ussen discloses all elements mentioned above, and further includes an embodiment (Figures 1-3b) including a cylindrical shaped drive unit (5) having an outer surface (see Figures 1-3b) and a motorized internal mechanism adapted to impart rotary motion to the drive unit (1; Column 2 Line 67 to Column 3 Line 2). In regards to claim 2, Ussen does disclose that the drive unit surface is sticky (Column 3 Lines 20-25, 40-42) so inherently the drive unit has an entire surface that is sticky. Regarding claim 6, the shape of the outer surface of the drive unit is at least substantially cylindrical see Figures 1-3b). Ussen states that drive unit (5) has a sticky surface (Column 3 Lines 20-25, 40-42), however does not disclose that there is a sheet having a first side and a second side that is connected to partial portions of the outer surface of a cylindrical shaped drive unit.

Sohmer discloses a lint sweeper (10) for cleaning floors and carpets using an adhesive surface (25) on a cylindrical roller or drive unit (23) for removing lint and dust (Column 1 Lines 39-42). The adhesive surface of Sohmer is a sheet having a first and second side (the adhesive surface or layer or tape 25 has a first and second side; Figures 2-3b) so that after the adhesive cleaning surface is contaminated with debris, a

Art Unit: 1744

user can remove a used portion and provide an unused portion (Column 2 Lines 48-56). The sheet (25) only partially encompasses the drive unit (23; Figure 2).

It would have been obvious for one of ordinary skill in the art to substitute the sticky cylindrical drive unit of Ussen for a cylindrical drive unit that has an adhesive sheet with first and second sides that is connected to the outer surface of the drive unit, as Sohmer teaches, so that a user may remove debris-contaminated sheets and provide unused cleaning sheets when cleaning. Also, it would have been obvious for one of ordinary skill in the art to modify the outer surface of Ussen so that the adhesive cleaning sheet portion is only partially encompassing the drive unit, as Sohmer teaches, so that only the surface rotary contact with the floor includes the cleaning sheet and material is not wasted on side portions that do not serve as cleaning surfaces.

3. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 as applied to claim 2 and Ussen, USPN 6,550,089 and Sohmer, USPN 3,742,547 as applied to claim 3, in view of Ruppel, USPN 3,696,557.

Ussen and Sohmer disclose all elements above, however do not disclose that the shape of the outer surface of the drive unit is at least substantially elliptical.

Ruppel teaches a toy that operates by a motorized internal mechanism (16) within a drive unit (12) that is substantially elliptical shaped (see Figure 1) for amusement (Column 2 Lines 4-9, this passage also states that the unit could be spherical as well) and is for rolling on a floor surface (Column 2 Lines 9-14).

It would have been obvious for one of ordinary skill in the art to modify the shape of the outer surface of the drive unit of Ussen or Ussen and Sohmer to be elliptical, as



Art Unit: 1744

Ruppel teaches, to offer further amusement to a user in that the elliptical drive unit would exhibit a different path of movement.

4. Claims 1, 3, 11, 17, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasen, WO 02/39864 in view of Graham et al., US 2001/0047559.

Aasen discloses the claimed invention including a “self-guided” drive unit (14 driven by 12; Page 5 Lines 15-35) having an outer surface (Figures 1, 2, 5) and a motorized internal mechanism adapted to impart rotary motion to the drive unit (12; Page 5 Lines 15-35), a disposable cleaning sheet (30; Page 7 Lines 15-17, 27-30; the sheet is removable via Velcro® fasteners and therefore capable of being disposed of) having a first and second side (see Figures 2 and 5), wherein the sheet is a formed sheet (Page 9 Lines 24-33, the sheet is “formed”), wherein the drive unit imparts rotary motion to the sheet (capable about imparting a rotary motion about a vertical axis; Page 5 Lines 15-29) (claims 1 and 19). Regarding claim 3, the sheet partially encompasses the drive unit (see Figures 2 and 5; Page 8 Lines 25-27). Regarding claims 11 and 21, the sheet includes at least one appendage extending therefrom (the corners from a square cloth or the extended cloth, Page 8 Lines 12-23). Regarding claim 17, the method of making the cleaner includes obtaining the drive unit having a motorized internal mechanism and providing a sheet for use with the drive unit (Page 6 Lines 1-23, Page 7 Lines 5-10). Aasen does not disclose that the sheet is constructed for a snug fit without the use of adhesives or fasteners as it uses Velcro® fasteners (18, 26).

Graham et al. teach a device having a cleaning sheet (18) that attaches snugly to a main unit (16, 17) that is driven (via handle 11) wherein the sheet is a “formed sheet”

Art Unit: 1744

(18) constructed for a snug fit to a main unit without the use of adhesives or fasteners (as it includes an elastic element 19; paragraph 25) so that a user can easily remove the cover from the main unit (paragraph 25).

It would have been obvious for one of ordinary skill in the art to modify the device by not using Velcro® fasteners of Aasen so that the sheet is constructed (with elastic) for a snug unit without using adhesives or fasteners, as Graham et al. teaches, so that a user can easily remove the sheet from a main driving unit.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ussen, USPN 6,550,089 in view of Aasen, WO 02/39864.

Ussen and Aasen disclose all elements mentioned above. Ussen does not disclose that the sheet includes at least one appendage extending therefrom. Aasen teaches that attachable dust cloths may include cloth extensions or corners on a self-driven cleaning device for cleaning more effectively along walls and in corners (Page 8 Line 12-23).

It is also well known to place mop strands about a core for cleaning, as most mops include. It would have been obvious for one of ordinary skill in the art to modify the outer surface of Ussen to include an appendage extending therefrom, as Aasen teaches or as most mops include, in order to clean within corners and along wall surfaces.

### ***Response to Arguments***

6. Applicant's arguments filed 31 July 2006 have been fully considered but they are not persuasive.



As mentioned above, the Examiner considers that the drive unit of Ussen is in fact “self-guided” as it guides itself physically independently, under the influence of a signal from a remote control, the device “self-guides”, drives itself according to the signal from the remote control (and not by human physical interaction), the device is capable of guiding itself by deflecting off objects, corners, or obstacles as it may bounce away from those surfaces, or the drive unit’s internal mechanism is actually the portion receiving the remote control and self-guides the unit. The Applicant describes “self-guided” in paragraph 11 of the present Specification, and states, “the invention guides itself” with “little” (“or no”) “human interaction”. While the Examiner *generally* agrees with the Applicants statements and arguments regarding Ussen, the Examiner still maintains that the drive unit of Ussen is “self-guided” as best that “self-guided” is defined and incorporated in the claims by the Applicant.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

An English translation of 10-262881 that is not translated by machine has been provided and clearly points out in paragraph 33 that the sheet uses adhesives in order to secure to the drive unit.

JP 10-165903 and an English machine translation of the description and abstract thereof is provided as it shows a similar type of self-driven cleaner to the claimed invention, however it is not clear in the machine translation as to the actual cleaning

Art Unit: 1744

sheet structure and whether or not a sheet uses adhesives or fasteners to secure to the drive unit. A complete English translation is not available to the Examiner at this time.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LCG  
LCG

  
GLADYS JP CORCORAN  
SUPERVISORY PATENT EXAMINER